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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/810,620	02/28/97	HICKMAN	P ENVSP025A

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EXAMINER

TITCOMB, W

ART UNIT

PAPER NUMBER

2757

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11/30/99

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.  
**08/810,620**

Applicant(s)  
**Hickman**

Examiner  
**William Titcomb**

Group Art Unit  
**2757**



☒ Responsive to communication(s) filed on 8-4-99

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 1-20 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1-20 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been  
☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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**Part III. DETAILED ACTION**

***Drawings***

1. This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

***Specification***

2. Claims 1-20 are presented for examination.
3. Applicant is suggested to number the lines of each claim. The preferred format is to number each line of every claim, with each claim beginning with line 1. For ease of reference by both the Examiner and Applicant all future correspondence should include the recommended line numbering.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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5. Claim 19 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The newly added claim limitation "originating", line 6, is not enabled in the application as filed. The earth-orbiting bodies, which can originate the data transmission, in addition to communicate and relay, lack an adequate enablement in the application's disclosure.

### ***Double Patenting***

6. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321 (c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

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Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

***Application No. 08/798,704 -- Statutory Double Patenting***

8. Claims 1-14 and 16-18, are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-14 and 16-18, of copending Application No. 08/798,704. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

***Application No. 08/798,704 -- Obvious-Type Double Patenting***

9. Claims 19-20 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 19-20 of copending Application No. 08/798,704. Although the conflicting claims are not identical, they are not patentably distinct from each other because the differences are very marginal (see following comparison table).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

The distinction between the present application and Application No. 08/798,704 are as follows:

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Application No. 08/798,704	Application No. 08/810,620 (presently under examination)
Claims 19 and 20  19. "A wide area TCP/IP protocol network comprising:  • at least one ground station ..., and at least one ground station being coupled to a TCP/IP protocol network to exchange TCP/IP data packets with said network;	Claims 19 and 20  19. "A wide area TCP/IP protocol network comprising:  • at least one ground station..., where at least one ground station being coupled to a TCP/IP protocol network to exchange TCP/IP data packets with said network;
	Identical wording in the first paragraph.
• ... non geo-synchronous earth-orbiting bodies ... earth-orbiting bodies ... can communicate ( <u>transmitting and receiving</u> ) with said at least one ground station at any given point in time, such that the satellites form a part of said network; and	• ...non geo-synchronous earth-orbiting bodies ... earth-orbiting bodies ... can communicate ( <u>transmitting, originating and recejving</u> ) with at least one ground station, ...

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	It would have been obvious to include “originating” to describe the communication link because figures 33 and 34 show a communication link (handing off, or a broadcast) involving at least one satellite, operating as part of a network.
20. “A wide area TCP/IP protocol network as recited in claim 19 wherein: <ul style="list-style-type: none"><li>• ... earth-orbiting bodies include a plurality of low-earth orbit satellites that communicate with TCP/IP compatible data packets,</li></ul>	20. “A wide area TCP/IP protocol network as recited in claim 19 wherein: <ul style="list-style-type: none"><li>• ...earth-orbiting bodies include a plurality of low-earth orbit satellites that communicate with TCP/IP compatible data packets,</li></ul>
	Identical wording.
said satellites communicating both with said ground station and with at least one other satellite, said satellites handing off communication with said ground station to a satellite that is in a best position to communicate with said ground station.”	said satellites communicating both with said ground station and with at least one other satellite, said satellites handing off communication with said ground station to a satellite that is in a best position to communicate with said ground station.”

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	<p>It would have been obvious to include “originating” to describe the communication link because figures 33 and 34 show a communication link (handing off, or a broadcast) involving at least one satellite, operating as part of a network.</p>
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***Application No. 08/808,882 -- Statutory Double Patenting***

10. Claims 1-14 and 16-18, are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-14 and 16-18, of copending Application No. 08/808,882. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

***Application No. 08/808,882 -- Obvious-Type Double Patenting***

11. Claims 19-20 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 19-20 of copending Application No. 08/808,882. Although the conflicting claims are not identical, they are not



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patentably distinct from each other because the differences are very marginal (see following comparison table).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

The distinction between the present application and Application No. 08/808,882 are as follows:

Application No. 08/808,882	Application No. 08/810,620 (presently under examination)
Claims 19 and 20 19. "A wide area TCP/IP protocol network comprising: <ul style="list-style-type: none"><li>• at least one ground station ..., and at least one ground station being coupled to a TCP/IP protocol network to exchange TCP/IP data packets with said network;</li></ul>	Claims 19 and 20 19. "A wide area TCP/IP protocol network comprising: <ul style="list-style-type: none"><li>• at least one ground station..., where at least one ground station being coupled to a TCP/IP protocol network to exchange TCP/IP data packets with said network;</li></ul>
	Identical wording in the first paragraph.

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<ul style="list-style-type: none"><li>• ... non geo-synchronous earth-orbiting bodies ... earth-orbiting bodies ... can communicate (<u>transmitting and receiving</u>) with said at least one ground station at any given point in time.”</li></ul>	<ul style="list-style-type: none"><li>• ...non geo-synchronous earth-orbiting bodies ... earth-orbiting bodies ... can communicate (<u>transmitting, originating and receiving</u>) with at least one ground station, ...</li></ul>
	It would have been obvious to include “originating” to describe the communication link because figures 33 and 34 show a communication link (handing off, or a broadcast) involving at least one satellite, operating as part of a network.
<p>20. “A wide area TCP/IP protocol network as recited in claim 19 wherein:</p> <ul style="list-style-type: none"><li>• ... earth-orbiting bodies include a plurality of low-earth orbit satellites that communicate (<u>transmitting and receiving</u>) with TCP/IP compatible data packets,</li></ul>	<p>20. “A wide area TCP/IP protocol network as recited in claim 19 wherein:</p> <ul style="list-style-type: none"><li>• ...earth-orbiting bodies include a plurality of low-earth orbit satellites that communicate (<u>transmitting, originating and receiving</u>) with TCP/IP compatible data packets,</li></ul>

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	<p>It would have been obvious to include “originating” to describe the communication link because figures 33 and 34 show a communication link (handing off, or a broadcast) involving at least one satellite, operating as part of a network.</p>
<p>said satellites communicating both with said ground station and with at least one other satellite, said satellites handing off communication <u>(transmitting and receiving)</u> with said ground station to a satellite that is in a best position to communicate with said ground station.”</p>	<p>said satellites communicating both with said ground station and with at least one other satellite, said satellites handing off communication <u>(transmitting, originating and receiving)</u> with said ground station to a satellite that is in a best position to communicate with said ground station.”</p>

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	It would have been obvious to include “originating” to describe the communication link because figures 33 and 34 show a communication link (handing off, or a broadcast) involving at least one satellite, operating as part of a network.
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***Application No. 08/799,787 -- Statutory Double Patenting***

12. Claims 1-14 and 16-18, are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-14 and 16-18, of copending Application No. 08/799,787. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

***Application No. 08/799,787 -- Obvious-Type Double Patenting***

13. Claims 19-20 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 19-20 of copending Application No. 08/799,787. Although the conflicting claims are not identical, they are not patentably distinct from each other because the differences are very marginal (see following comparison table).

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This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

The distinction between the present application and Application No. 08/799,787 are as follows:

Application No. 08/799,787	Application No. 08/810,620 (presently under examination)
Claims 19 and 20 19. "A wide area TCP/IP protocol network comprising: <ul style="list-style-type: none"><li>• at least one ground station ..., and at least one ground station being coupled to a TCP/IP protocol network to exchange TCP/IP data packets with said network;</li></ul>	Claims 19 and 20 19. "A wide area TCP/IP protocol network comprising: <ul style="list-style-type: none"><li>• at least one ground station..., where at least one ground station being coupled to a TCP/IP protocol network to exchange TCP/IP data packets with said network;</li></ul>
	Identical wording in the first paragraph.

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<ul style="list-style-type: none"><li>• ... non geo-synchronous earth-orbiting bodies ... earth-orbiting bodies ... can communicate (<u>transmitting and receiving</u>) with said at least one ground station at any given point in time.”</li></ul>	<ul style="list-style-type: none"><li>• ...non geo-synchronous earth-orbiting bodies ... earth-orbiting bodies ... can communicate (<u>transmitting, originating and receiving</u>) with at least one ground station, ...</li></ul>
	It would have been obvious to include “originating” to describe the communication link because figures 33 and 34 show a communication link (handing off, or a broadcast) involving at least one satellite, operating as part of a network.
20. “A wide area TCP/IP protocol network as recited in claim 19 wherein: <ul style="list-style-type: none"><li>• ... earth-orbiting bodies include a plurality of low-earth orbit satellites that communicate (<u>transmitting and receiving</u>) with TCP/IP compatible data packets,</li></ul>	20. “A wide area TCP/IP protocol network as recited in claim 19 wherein: <ul style="list-style-type: none"><li>• ...earth-orbiting bodies include a plurality of low-earth orbit satellites that communicate (<u>transmitting, originating and receiving</u>) with TCP/IP compatible data packets,</li></ul>

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	<p>It would have been obvious to include “originating” to describe the communication link because figures 33 and 34 show a communication link (handing off, or a broadcast) involving at least one satellite, operating as part of a network.</p>
<p>said satellites communicating both with said ground station and with at least one other satellite, said satellites handing off communication <u>(transmitting and receiving)</u> with said ground station to a satellite that is in a best position to communicate with said ground station.”</p>	<p>said satellites communicating both with said ground station and with at least one other satellite, said satellites handing off communication <u>(transmitting, originating and receiving)</u> with said ground station to a satellite that is in a best position to communicate with said ground station.”</p>

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	It would have been obvious to include “originating” to describe the communication link because figures 33 and 34 show a communication link (handing off, or a broadcast) involving at least one satellite, operating as part of a network.
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***Application No. 08/810,679 -- Statutory Double Patenting***

14. Claims 1-14 and 16-18, are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-14 and 16-18, of copending Application No. 08/810,679. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

***Application No. 08/810,679 -- Obvious-Type Double Patenting***

15. Claims 19-20 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 19-20 of copending Application No. 08/810,679. Although the conflicting claims are not identical, they are not



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patentably distinct from each other because the differences are very marginal (see following comparison table).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

The distinction between the present application and Application No. 08/810,679 are as follows:

Application No. 08/810,679	Application No. 08/810,620 (presently under examination)
Claims 19 and 20  19. "A wide area TCP/IP protocol network comprising:  • <u>a plurality terrestrial nodes</u> ..., where at least <u>some of said terrestrial nodes</u> <u>are capable of repeating TCP/IP data</u> <u>packets destined for other terrestrial</u> <u>nodes;</u>	Claims 19 and 20  19. "A wide area TCP/IP protocol network comprising:  • <u>at least one ground station...</u> , where at least <u>one ground station being coupled</u> <u>to a TCP/IP protocol network to</u> <u>exchange TCP/IP data packets with</u> <u>said network;</u>

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	<p>The distinction would have been obvious to substitute “a plurality” for “at least one” and “terrestrial nodes” for “ground station” since both substitutions are replacing one term with another that is inherently synonymous.</p>
<ul style="list-style-type: none"><li>• ... <u>non-terrestrial nodes</u> ... <u>non-terrestrial nodes</u> ... can communicate (<u>transmitting and receiving</u>) with at least one <u>non-terrestrial node</u>, and wherein said at least one non-terrestrial node includes ... a host computer that can be controlled from a terrestrial node due to a host computer program means implemented on said host computer...”</li></ul>	<ul style="list-style-type: none"><li>• ...<u>non geo-synchronous earth-orbiting bodies</u> ... <u>earth-orbiting bodies</u> ... can communicate (<u>transmitting, originating and receiving</u>) with at least one ground station, ...</li></ul>

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	<p>The distinction would have been obvious to substitute the term “non-terrestrial nodes” for “non geo-synchronous earth-orbiting bodies”, and to include “originating” to describe the communication link because figures 33 and 34 show a communication link (handing off, or a broadcast) involving at least one satellite, operating as part of a network</p>
<p>20. “A wide area TCP/IP protocol network as recited in claim 19 wherein:</p> <ul style="list-style-type: none"><li>• ... <u>non-terrestrial nodes include a plurality of earth-orbiting satellites that communicate with TCP/IP compatible data packets, ...</u></li></ul>	<p>20. “A wide area TCP/IP protocol network as recited in claim 19 wherein:</p> <ul style="list-style-type: none"><li>• ...<u>earth-orbiting bodies include a plurality of low-earth orbit satellites that communicate with TCP/IP compatible data packets,</u></li></ul>

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	said satellites communicating both with said ground station and with at least one other satellite, said satellites handing off communication with said ground station to a satellite that is in a best position to communicate with said ground station.”
	It would have been obvious to include “originating” to describe the communication link because figures 33 and 34 show a communication link (handing off, or a broadcast) involving at least one satellite, operating as part of a network.

16. Claims 1-20 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-20 of copending Application No. 08/798,704. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

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17. Claims 1-20 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-20 of copending Application No. 08/808,882. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

18. Claims 1-20 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-20 of copending Application No. 08/799,787. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

19. Claims 1-20 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-20 of copending Application No. 08/810,679. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

***Claim Rejections - 35 USC § 102***

20. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

21. Claims 1-5 and 7-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Barone et al., U.S. Patent Number 5,315,711 (hereinafter "Barone").

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In regards to claim 1, Barone teaches a computer network system, substantially as claimed, comprising:

- a plurality of network accessible computers, each including a central processing unit and non-volatile memory, coupled to a network, implementing host computer programs which permit the network accessible computers to operate as host computers for client computers connected to said network, whereby input devices of said client computers can be used to generate inputs to host computers (see, FIG. 5, item 70);
- such that image information generated by said hosts can be viewed by said client computers (see, cols. 11-12, lines 66-07); and
- a cluster administration computer coupled to network accessible computers to monitor the operation of network accessible computers (see, col. 13, lines 34-43).

In regards to claims 2-5, 7-12, and 14-18, Barone teaches:

- a plurality of network accessible computers, each coupled to network by communications channels (see, FIG. 5, item 12) satisfying claim 2;
- each including volatile memory and data bus controllers (see, col. 7, lines 28-34) satisfying claim 3;
- a cluster computer system as recited in claim 1 wherein said network is a TCP/IP protocol network (see, col. 13, lines 39-43); and
- host computer means responsive to keyboards and pointing devices of clients as transmitted to hosts over said TCP/IP protocol network under the control of client

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programs running on said client computers, and host programs transmitting image information to client computers over said TCP/IP protocol network for display in browser windows of browser programs running on client computers (see, cols. 11+12, lines 66-19) satisfying claim 4;

- client programs are transmitted to client computers over said TCP/IP protocol network (see, col. 13, lines 39-43) satisfying claim 5;
- cluster administration computer is operative to control at least one function of said network accessible computers (see, col. 13, lines 34-43) satisfying claim 7;
- cluster administration computer can reset a selected network accessible computer (see, col. 13, lines 44-54) satisfying claims 8, 16 and 17;
- cluster administration computer is coupled to network to receive inputs from other computer systems coupled to network (see, col. 12, lines 19-27) satisfying claim 9;
- cluster administrative computer servers coordinate the sharing of at least one local resource by network accessible computers (see, col. 13, lines 44-54) satisfying claim 10;
- one local resource is a data storage device (see, col. 11, lines 49-50) satisfying claim 11;
- cluster administrative computer is running a cluster administrative program which administers the connection of a client computer to a host computer (see, col 13, lines 44-54) satisfying claim 12;

As per claim 13, Barone teaches a system substantially as claimed, as discussed above, and for providing access to host computers by client computers over a computer network comprising:

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- receiving a request for a host computer coupled to a computer network from a client computer coupled to computer network from a client such that after said client computer becomes associated with a host, an input device can be used to generate inputs to host, such that image information generated by host can be viewed by client due to host program means; and
- determining a suitable host for client (see, col. 13, lines 44-54);
- determining a suitable host computer further including loading a personal state of a client, and comparing those requirements to characteristics of available hosts (see, col. 13, lines 44-54) satisfying claim 14;
- loading a personal state of a client into network accessible computer that will serve as a host (see, col. 13, lines 34-43) satisfying claim 15; and
- informing client of network address of host whereby client can be associated with host discussed above in regards to claim 13 and (see, col. 13, lines 44-54) satisfying claim 18.

***Claim Rejections - 35 USC § 103***

22. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.



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23. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Barone in view of van Hoff et al., (ISBN: 0-201-48837-X). Barone discloses a system enabling high speed transmission of voice, image and data, as discussed above.

Although the system disclosed by Barone shows substantial features of the claimed invention, as discussed above, it does not disclose the specific limitation of Java Applet client program adapters, as advanced in the claimed invention. Nevertheless, such limitations would have been an obvious modification to Barone, as evidenced by van Hoff et al. Van Hoff, in a text book for an analogous art, discloses an Java Applet adapter. Van Hoff discloses that Java Applets became useful as the World Wide Web evolved from a text-based interface into an image-enriched interface including text and data (see, page 8, paragraph 2, line 2). Van Hoff further discusses Java's popularity and widespread use as a platform-neutral, programming language. Java programming language is used to create an adapter, i.e., a Java Applet, which will operate in a non-native environment, allowing an Internet user access to visual information and data resident on different operating systems. Therefore, the use of Java Applets to transmit data, would have been an obvious modification of the system disclosed by Barone, motivated by the developers' desire to be compatible with as many operating systems as possible.

24. Claims 19 and 20 are rejected under 35 U.S.C. 103 as being unpatentable over Fielden et al., U.S. Patent Number 5,581,390, (hereinafter "Fielden") in view of Walker, Communication Quality and Forward Error Correction, Advanced Imaging, May 1995 (hereinafter "Walker").

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As per claims 19 and 20, Fielden discloses apparatus and method for conveying frame timing, data timing, and data between remotely located positions, substantially as claimed, including:

- at least one ground station capable of transmitting and receiving TCP/IP compatible data packets and being coupled to a TCP/IP network to exchange TCP/IP packets (see, col. 4, line 23);
- non geo-synchronous earth-orbiting bodies capable of transmitting and receiving TCP/IP compatible data packets, where at least one earth-orbiting body can communicate with at least one ground station at any time (see, col. 3, lines 19-21 and 53-58); and
- non geo-synchronous earth-orbiting bodies include low earth-orbiting satellites that communicate with TCP/IP compatible data packets, communicating both with said ground station and with at least one other satellite, handing off communication with said ground station to a satellite that is in a best position to communicate with said ground station (see, col. 3, lines 53-58).

Although the system disclosed by Fielden shows substantial features of the claimed invention, as discussed above, it does not explicitly disclose the specific limitation of an originating broadcast of data packets from a non geo-synchronous earth orbiting body advanced in the invention. Nevertheless, such a limitation would have been an obvious modification to Fielden, as evidenced by Walker. Walker, in a similar art, teaches broadcast of originating signal

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data from satellites, including weather and military. The satellites designed to gather and send data to earth in a continuous stream at a rate of 86 billion bits per day (Walker, pg. 3).

Given the teachings of Walker, a person having ordinary skill in the art, at the time of the invention, would have been motivated to modify Fielden by employing broadcast of originating data from earth-orbiting bodies to gather and send data to earth stations. Thus, Fielden would have been able to transmit originating broadcast signals. Further, the satellite system of Fielden would have served the additional purpose as a database for query information. Therefore, the claimed invention would have been an obvious modification of the system disclosed by Fielden.

24. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Barone in view of van Hoff et al., (ISBN: 0-201-48837-X). Barone discloses a system enabling high speed transmission of voice, image and data, as discussed above.

Although the system disclosed by Barone shows substantial features of the claimed invention, as discussed above, it does not disclose the specific limitation of Java Applet client program adapters, as advanced in the claimed invention. Nevertheless, such limitations would have been an obvious modification to Barone, as evidenced by van Hoff et al. Van Hoff, in a text book for an analogous art, discloses an Java Applet adapter. Van Hoff discloses that Java Applets became useful as the World Wide Web evolved from a text-based interface into an image-enriched interface including text and data (see, page 8, paragraph 2, line 2). Van Hoff further discusses Java's popularity and widespread use as a platform-neutral, programming language.

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Java programming language is used to create an adapter, i.e., a Java Applet, which will operate in a non-native environment, allowing an Internet user access to visual information and data resident on different operating systems. Therefore, the use of Java Applets to transmit data, would have been an obvious modification of the system disclosed by Barone, motivated by the developers' desire to be compatible with as many operating systems as possible.

### ***Response to Arguments***

25. Applicant's arguments filed August 4, 1999 have been fully considered but are moot in view of the new grounds of rejection.

### ***Conclusion***

26. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Kleinerman, et al. (USPN 5,228,137) teaches method for controlling execution of host computer application programs through a second computer by establishing relevant parameters having variable time of occurrence and context.
- Dillon, et al. (USPN 5,968,129) teaches method and apparatus for selectively retrieving information from a source computer using terrestrial or satellite interface.

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27. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William Titcomb whose telephone number is (703) 305-0081.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glen Burgess, can be reached on (703) 305-4792. The facsimile number for this Group is (703) 305-7201. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group's Receptionist whose telephone number is (703) 305-3900.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:**

(703) 308-9051, **(for formal communications intended for entry)**


**or:**

(703) 305-7201 **(for informal or draft communications please label "PROPOSED" or "DRAFT")**;

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington VA., Sixth Floor (Receptionist).

wdt

November 18, 1999

  
**GLENTON B. BURGESS**  
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